WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Tuesday, April 05, 2005

Hide?	Set Name	Query	Hit Count
		DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=AND	
☐	L1	membran$ near3 fragment$	4438
☐	L2	L1 same (oxygen$ or anaerob$ or scavenging or scavenger)	70
☐	L3	L1 same (anaerob$ or scavenging or scavenger)	29
☐	L4	l3 and ($azide or azide$)	2
☐	L5	l1 and ($azide or azide$)	761
☐	L6	l2 and ($azide or azide$)	9
☐	L7	L6 not l4	7
☐	L8	(nan3 or na-n3 or nan$5 or azide or $azide or azide$2).clm.	19671
☐	L9	(nan3 or na-n3 or azide or $azide or azide$2).clm.	7710
☐	L10	L9 and l1.clm.	2
☐	L11	L9 and l1	27
☐	L12	anaerob$.ti,ab,clm.	20976
☐	L13	L12 and l1	20
☐	L14	L13 and azide	2
☐	L15	L13 and l9	1
☐	L16	L12 and l9	21
☐	L17	L12 and l9	21
☐	L18	membran$.clm. near3 fragment$.clm.	250
☐	L19	L18 and l12	2
☐	L20	L18 and anaerob$	13
☐	L21	l20 and preserv$	8
☐	L22	l20 and (na or sodium)	13

END OF SEARCH HISTORY

WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Tuesday, April 05, 2005

Hide?	Set Name	Query	Hit Count
		DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=AND	
☐	L1	membran$ near3 fragment$	4438
☐	L2	L1 same (oxygen$ or anaerob$ or scavenging or scavenger)	70
☐	L3	L1 same (anaerob$ or scavenging or scavenger)	29
☐	L4	l3 and ($azide or azide$)	2
☐	L5	l1 and ($azide or azide$)	761
☐	L6	l2 and ($azide or azide$)	9
☐	L7	L6 not l4	7
☐	L8	(nan3 or na-n3 or nan$5 or azide or $azide or azide$2).clm.	19671
☐	L9	(nan3 or na-n3 or azide or $azide or azide$2).clm.	7710
☐	L10	L9 and l1.clm.	2
☐	L11	L9 and l1	27
☐	L12	anaerob$.ti,ab,clm.	20976
☐	L13	L12 and l1	20
☐	L14	L13 and azide	2
☐	L15	L13 and l9	1
☐	L16	L12 and l9	21
☐	L17	L12 and l9	21
☐	L18	membran$.clm. near3 fragment$.clm.	250
☐	L19	L18 and l12	2
☐	L20	L18 and anaerob$	13
☐	L21	l20 and preserv$	8
☐	L22	l20 and (na or sodium)	13
☐	L23	anaerob$ same (nan3 or na-n3 or azide or $azide or azide$2)	114
☐	L24	L23 and l1	2

END OF SEARCH HISTORY

WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Tuesday, April 05, 2005

Hide?	Set Name	Query	Hit Count
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=AND		
☐	L1	azide and oxydish	0
☐	L2	$azide and oxy-dish	0
☐	L3	$azide and oxyrase	8
☐	L4	($azide or azide$ or nan3) same (oxydish$ or $oxydish or $oxyrase or oxyrase$)	1
☐	L5	($azide or azide$ or nan3)and (oxydish$ or $oxydish or $oxyrase or oxyrase$) not l4	7

END OF SEARCH HISTORY

WEST Search History

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DATE: Tuesday, April 05, 2005

Hide?	Set Name	Query	Hit Count
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=AND		
☐	L1	catalase same ($azide or nan3 or na-n3 or azide$)	283
☐	L2	L1 and anaerob$	66
☐	L3	L1 same anaerob$	28
☐	L4	L1 same inhibit$	132
☐	L5	catalase near10 ($azide or nan3 or na-n3 or azide$)near10 inhibit$	93
☐	L6	catalase near10 ($azide or nan3 or na-n3 or azide$) near10 inhibit$	93
☐	L7	(4476224 or 4,476,224) and l1	0
☐	L8	(4476224 or 4,476,224) and (oxydish or oxy-dish or oxydish$ or oxyrase$)	19
☐	L9	l1 and (oxydish or oxy-dish or oxydish$ or oxyrase$)	3
☐	L10	hepes near25 azide	799
☐	L11	L10 same calbiochem	4

END OF SEARCH HISTORY

0013774953 BIOSIS NO.: 200200368464
NADH oxidase-mediated production of superoxide in the renal thick ascending limb in response to hypoxia
AUTHOR: Chen Ya-fei (Reprint); Spurrier Jamie L (Reprint); Li Pin-Lan (Reprint); Cowley Allen W Jr (Reprint); Zou Ai-Ping (Reprint)
AUTHOR ADDRESS: Medical College of Wisconsin, 8701 Watertown Plank Rd, Milwaukee, WI, 53226, USA**USA
JOURNAL: FASEB Journal 16 (4): pA432 March 20, 2002 2002
MEDIUM: print
CONFERENCE/MEETING: Annual Meeting of the Professional Research Scientists on Experimental Biology New Orleans, Louisiana, USA April 20-24, 2002; 20020420
ISSN: 0892-6638
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Recent studies in our laboratory have shown that NADH oxidase is a major enzyme responsible for the production of superoxide (O2.-) in the thick ascending limb of Henle's loop (TALH) in the rat kidney. The present study was designed to test the hypothesis that NADH oxidase produces O2.- in response to hypoxia or to changes in the tubular activity of the TALHs. We microdissected the TALHs from the kidney of Sprague Dawley rats, and measured intracellular O2.- anions within TALH cells by dihydroethedium (DHE) fluorescence imaging analysis. The intensity of DHE fluorescence represented the concentrations of O2.- in the cells. Incubation of the TALHs in a low oxygen chamber (1-2% O2) markedly increased DHE fluorescence by 162% ($p<0.05$), which was substantially blocked by an inhibitor of NADH oxidase, diphenyleneiodonium chloride (DPI). ***Oxyrase*** , an enzyme mixture that consumed or depleted oxygen in the incubation solution, significantly increased intracellular O2.- production (97%, $p<0.05$), which could be blocked by DPI. Moreover, chemical hypoxia due to blockade of oxygen-dependent tubular metabolism by sodium **azide** also activated NADH oxidase to produce O2.- within TALH cells. Based on these results, we conclude that NADH oxidase in the TALHs is an oxygen-sensitive enzyme responsible for the production of O2.- under different circumstances of hypoxia. This NADH oxidase-mediated O2.- production may be an important redox signaling mechanism contributing to the regulation of ion transport activity in these TALH cells.

REGISTRY NUMBERS: 9032-21-7: NADH oxidase; 11062-77-4: superoxide
DESCRIPTORS:
MAJOR CONCEPTS: Enzymology--Biochemistry and Molecular Biophysics; Urinary System--Chemical Coordination and Homeostasis
BIOSYSTEMATIC NAMES: Muridae--Rodentia, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: rat (Muridae)
ORGANISMS: PARTS ETC: Henle's loop--excretory system; thick ascending limb--excretory system

KLEIN Richard M (agent), Fay, Sharpe, Fagan, Minnich & McKee LLP, 1100 Superior Avenue, Seventh Floor, Cleveland, OH 44114-2579, US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200340285 A1 20030515 (WO 0340285)
Application: WO 2002US16677 20020520 (PCT/WO US0216677)
Priority Application: US 20017739 20011108
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 11288

3/3/4 (Item 1 from file: 654)
DIALOG(R)File 654:US Pat.Full.

0005305261 **IMAGE Available
Derwent Accession: 2004-051087
Medium composition, method and device for selectively enhancing the isolation of %anaerobic% microorganisms contained in a mixed sample with facultative microorganisms
Inventor: James Copeland, INV
Kathy Myers, INV
Correspondence Address: FAY, SHARPE, FAGAN, MINNICH & McKEE, LLP, 7th Floor 1100 Superior Avenue, Cleveland, OH, 44114-2516, US

	Publication Number	Kind	Date	Application Number	Filing Date
Main Patent	US 20030138867	A1	20030724	US 20017739	20011108
Provisional				US 60-246872	20001108

Fulltext Word Count: 12721

3/3/5 (Item 1 from file: 340)
DIALOG(R)File 340:CLAIMS(R)/US Patent

10394447 2003-0138867 2003-0040205
C/MEDIUM COMPOSITION, METHOD AND DEVICE FOR SELECTIVELY ENHANCING THE ISOLATION OF %ANAEROBIC% MICROORGANISMS CONTAINED IN A MIXED SAMPLE WITH FACULTATIVE MICROORGANISMS; CULTURE CONTAINING SODIUM AZIDE AND APPARATUS FOR ISOLATION AND/OR IDENTIFICATION OF %ANAEROBES%; OXYGEN SCAVENGING MEMBRANES; PREVENTION OF FOOD CONTAMINATION AND MICROORGANISMAL INFECTIONS
Inventors: Copeland James C (US); Myers Kathy J (US)
Assignee: Unassigned Or Assigned To Individual
Assignee Code: 68000

Publication Number	Kind	Date	Application Number	Date

US 20030138867 A1 20030724	US 20017739	20011108
Priority Applic:	US 20017739	20011108
Provisional Applic:	US 60-246872	20001108

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The probable cause is use of unlimited truncation. Revise your search strategy to use limited truncation.

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Search Results - Record(s) 1 through 2 of 2 returned.

☐ 1. Document ID: US 20030138867 A1

Using default format because multiple data bases are involved.

L4: Entry 1 of 2 File: PGPB Jul 24, 2003

PGPUB-DOCUMENT-NUMBER: 20030138867
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030138867 A1

TITLE: Medium composition, method and device for selectively enhancing the isolation of anaerobic microorganisms contained in a mixed sample with facultative microorganisms

PUBLICATION-DATE: July 24, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Copeland, James C.	Ashland	OH	US	
Myers, Kathy J.	Mansfield	OH	US	

US-CL-CURRENT: 435/7.32

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw De

☐ 2. Document ID: US 20030138867 A1

L4: Entry 2 of 2 File: DWPI Jul 24, 2003

DERWENT-ACC-NO: 2004-051087
DERWENT-WEEK: 200405
COPYRIGHT 2005 DERWENT INFORMATION LTD
TITLE: Medium composition for selective enhancement of anaerobes from a mixed sample with facultative microorganisms, comprises a nutrient medium and a salt of azide

INVENTOR: COPELAND, J C; MYERS, K J

PRIORITY-DATA: 2000US-246872P (November 8, 2000), 2001US-0007739 (November 8, 2001)

L3: Entry 5 of 8 File: USPT Jul 11, 2000

DOCUMENT-IDENTIFIER: US 6087358 A
TITLE: Nitro-[2,1-b]imidazopyran compounds and antibacterial uses thereof

Detailed Description Text (42):
reacting alcohol 4 (R.sub.3 .dbd.H) with a variety of alkylating reagents selected from but not limited to methyl iodide, octyl iodide, benzyl bromide, 4-benzyloxybenzyl chloride, 4-butylbenzyl bromide and the like with strong bases such as sodium hydride, potassium hydride, sodium bis(trimethylsilyl)amide in a dry aprotic solvent at temperatures between -20.degree. C. to 70.degree. C. The synthesis of the amino and amide derivatives, 23 and 25 or 26, respectively, proceeds through the intermediate, carboxylic acid 22, and alcohol 4. Reaction of 1 with the TBDMS ether of ethyl .alpha.-(hydroxymethyl)acrylate (8, R.dbd.H, Org. Synthesis, 66:220 (1987)) in the presence of a base, for example, sodium ethoxide in ethanol, and deprotection of the silyl ether with tetrabutylammonium fluoride in THF gives the ethyl ester 10 (Z.dbd.CHCO.sub.2 Et, X.dbd.O, Y.dbd.CH.sub.2, FIG. 1). The ester is hydrolyzed using an alkaline base such as sodium hydroxide, lithium hydroxide in water, aqueous ethanol, THF, dioxane and the like. The resulting carboxylic acid 22 is reacted with triethylamine and diphenylphosphorylazide in toluene at 70 to 150.degree. C. to give an isocyanate intermediate. Reaction of an alcohol or amine with the isocyanate gives the carbamate 26a (R.sub.5 .dbd.H, R.sub.7 .dbd.R.sub.8 O) or urea 26b (R.sub.5 .dbd.H, R.sub.7 .dbd.R.sub.8 R.sub.9 N), respectively. When the intermediate isocyanate is reacted with t-butanol the product carbamate 26a (R.sub.5 .dbd.H, R.sub.7 .dbd.t-BuO) is isolated. Alkylation of the t-butyl carbamate with electrophiles such as an alkyl or alkylaryl halide and the like and deprotection of the Boc (t-butyl carbamate) group with trifluoroacetic acid, or hydrochloric acid gives the secondary amine 23 (R.sub.5 .dbd.H, R.sub.6 .dbd.alkyl, alkylaryl). Alternatively, the Boc at carbamate 26a (R.sub.5 .dbd.H, R.sub.7 .dbd.t-BuO) is reacted with trifluoroacetic acid, or hydrochloric acid to give the primary amine 23 (R.sub.5 .dbd.R.sub.6 .dbd.H) which can be reductively alkylated (RCHO, sodium cyanoborohydride) to give the secondary amine 23 (R.sub.5 .dbd.H, R.sub.6 .dbd.RCH.sub.2). A second alkylation of the secondary amine with an electrophile such as an alkyl or alkylaryl halide and the like gives a tertiary amine 23 (R.sub.5 .dbd.R.sub.6 .dbd.alkyl, alkylaryl). Additional reactions that the primary or secondary amine 23 (R.sub.5 .dbd.R.sub.6 .dbd.H or R.sub.5 .dbd.H, R.sub.6 .dbd.alkyl, alkylaryl) undergo include acylation with an acid chloride, sulfonyl chloride, isocyanate, and isothiocyanate to give derivative 26 (R.sub.5 .dbd.H or alkyl, alkylaryl, R.sub.7 .dbd.alkyl, alkylaryl, aryl, heterocycle), 23 R.sub.5 .dbd.H or alkyl, alkylaryl, R.sub.6 .dbd.SO.sub.2 alkyl, SO.sub.2 alkylaryl, SO.sub.2 aryl, SO.sub.2 heterocycle), 26 (R.sub.5 .dbd.H or alkyl, alkylaryl, R.sub.7 .dbd.NHalkyl, NHheterocycle), and 23 (R.sub.5 .dbd.H or alkyl, alkylaryl, R.sub.6 .dbd.alkylNHC.dbd.S, alkylarylNHC.dbd.S, arylNHC.dbd.S, heterocycleNHC.dbd.S). The synthesis of carboxamide derivatives 25 is accomplished by reaction of acid 22 and a primary or secondary amine with a peptide coupling reagent, such as hydroxybenzotriazole (HOBT)/dicyclohexylcarbodiimide (DCC) or 2-[1H-benzotriazole-1-yl]-1,13,3,tetramethyluronium hexafluorophosphate (HBTU) and the like. The peptide coupling reaction may be conducted in a polar aprotic solvent (for example, dimethylformamide and N-methylpyrrolidone (NMP) with a base such as N-methylmorpholine and the like). An alternative synthesis of amine 23 (R.sub.5 .dbd.R.sub.6 .dbd.H) involves the reaction of alcohol 4 (R.sub.3 .dbd.H)

with p-toluenesulfonyl chloride in pyridine. The intermediate sulfonate 4 (R.sub.3 .dbd.pCH.sub.3 C.sub.6 H.sub.4 SO.sub.2) is reacted with sodium azide. The resulting azide is reduced with 1,3-propanediol and triethyl amine to give amine 23.

Detailed Description Text (43):
Referring now to FIGS. 4 and 5, specific compounds of the invention are prepared according to the procedures outlined. Reaction of either 2-chloro-4-nitroimidazole 1a or 2,4-dinitroimidazole 1b (1 eq.) with of R- or S-glycidol TBDMS ether (2 eq.) (Example 1) as a neat solution at 70.degree. C. gave the hydroxy imidazole 27a or b. Protection of alcohol 27a as its trahydropranyl ether (DHP, p-TsOH) and desilylation of the TBDMS group with tetrabutylammonium fluoride produced the bicyclic nitroimidazole THP ether 28. Deprotection of the THP group was effected using acetic acid in aqueous THF and the resulting alcohol was alkylated with octyl bromide and sodium hydride in DMF at room temperature. The octyl ether 31a was obtained as a white crystalline solid ([.alpha.].sup.25 D=-28.1.degree.). Synthesis of the entiomeric ether series was also acheived and ent-31a was obtained ([.alpha.].sup.25 D=+27.45.degree.). Alternatively, alcohol 27b was tosylated with p-toluenesulfonyl chloride in pyridine to give the tosylate 30. Treatment of the TBDMS ether 30 with TBAF cleaved the silyl group with concominent cyclization to give the cyclic tosylate 31b. Reaction of 31b with sodium azide and reduction (1,3-propanediol, triethylamine) gave the amine 31d in good yield. Synthesis of the nitrogen-containing bicyclic nitroimidazole analog 37 was accomplished using a similiar approach. Thus, reaction of 1 with the Boc epoxide gave 29. Protection of alcohol 29 as the TBDMS ether (TBDMSCl, imidazole, DMF) and cyclization of the resulting Boc amino ether with sodium hydride in DMF gave imidazole 32. Both the Boc and TBDMS protecting groups were removed by treating compound 32 with aqueous HCl. The amino alcohol was selectively alkylated (sodium hydride, methyl iodide, DMF) to give the N-methyl derivative 34 (R.dbd.CH.sub.3) which was alkylated in a second step (sodium hydride, 4-benzyloxybenzyl chloride, DMF, 0.degree. C. to room temperature) affording the aza nitroimidazole compound 35. FIG. 5 illustrates the preparation of cyclic lactams 37, aza analog 40, cyclic carbamate 41 and pyran 44 derivatives. 3-Bromopropionamide and 4-bromobutramides reacted with the sodium salt of 1b in DMF to give the acyclic amides 36. The cyclic amides 37a and 37b were obtained by treating 36a and 36b with sodium hydride in DMF. Reduction of the carbonyl group of 37a was affected with borane in THF at reflux temperature, affording the aza derivative 40 in good yield. The cyclic carbamate 41 was prepared by reacting alcohol 38 with octyl isocyanate in the presense of CuI to give carbamate 39 which was cyclized under basic conditions (sodium hydride, DMF). Finally, the pyranyl nitroimidazole analog 44 was prepared either by alkylation of 1b with the bromo TBDMS ether followed by deprotective cyclization or opening oxetane with 1b in the presense of lithium tetrafluoroborate in THF followed by base (sodium hydride, DMF) induced cyclization of alcohol 43.

Detailed Description Text (142):
A solution of 3R-carboxylate-6-nitro-2H-3,4-dihydro-[2-1b]imidazopyran (Example 21, 1 eq.), triethylamine (1 eq.), diphenylphosphoryl azide (1 eq.) in toluene is heated at 80.degree. C. for 4 h, cooled and t-butanol is added. The reaction is warmed to 70.degree. C. for an additional 1 h. Workup in the standard fashion gives the Boc amine. Deprotection of the Boc group (trifluoroacetic acid:dichloromethane, 1:1) and addition of 4-benzyloxybenzoyl chloride and triethylamine gives the 4-benzyloxybenzamide of 3R-amino-6-nitro-2H-3,4-dihydro-[2-1b]imidazopyran.

Detailed Description Text (149):
Minimum inhibitory concentration (MIC; .mu.g/mL) of test drugs against Clostridium difficile ATCC 17857 was determined by broth microdilution method using inoculum, media, incubation conditions and end-point in accordance with approved standards of the National Committee for Clinical Laboratory Standards (NCCLS, National Committee for Clinical Laboratory Standards. 1993. Methods for antimicrobial susceptibility testing of anaerobic bacteria. M11-A3. Third edition. National Committee: for

Clinical Laboratory Standards, Villanova, Pa.) except for the following modification: Oxyrase.RTM. enzyme (Oxyrase Inc., Mansfield, Ohio) was incorporated in Wilkins-Chalgren broth (Remel, Lenexa, Kans.) to produce anaerobic conditions and preclude any requirement for anaerobic atmosphere incubation (Spangler, S. K. et al. "Oxyrase, a method which avoids CO.sub.2 in the incubation atmosphere for anaerobic susceptibility testing of antibiotics affected by CO.sub.2," J. Clin. Microbiol. 31:460-462 (1993); Spangler, S. K. et al., "Susceptibilities of 201 anaerobes to erythromycin, azithromycin, clarithromycin, and roxithromycin by Oxyrase agar dilution and E-test methodologies," J. Clin. Microbiol. 33:1366-1367 (1995)). Thus, the use of this method allowed incubation in ambient air rather than the CO.sub.2, H.sub.2 and N.sub.2- enriched atmosphere normally present in anaerobic chambers and jars. The Oxyrase both dilution method precluded the need of such equipment and provided a mechanism of avoiding the effects of CO.sub.2 on the pH of the medium and in turn on the activity of test compounds. Falsely elevated MICs due to CO.sub.2- dependent decrease in the pH has been previously demonstrated (Barry, A. L. et al., "In-vitro potency of azithromycin against gram-negative bacilli is method-dependent," J. Antimicrob. Chemother., 28:607-610 (1991), Hansen, S. L. et al., "Effect of carbon dioxide and pH on susceptibility of Bacteroides fragilis group to erythromycin," Antimicrob. Agents Chemother., 19:335-336 (1981), Retsema, J. A. et al., "Significance of environmental factors on the in vitro potency of azithromycin," Eur. J. Clin. Microbiol. Infect. Dis., 10:834-842 (1991)). This problem was eliminated by using Oxyrase, since this enzyme removed O.sub.2 rapidly converting it to H.sub.2 O without toxic intermediates. Quality control anaerobic microorganisms (Bacteroides thetaiotamicrons ATCC 29741; Eubacterium lentum ATCC 43055) were tested in Oxyrase broth microdilution against clindamycin, metronidazole, mezlocillin, and vancomycin for quality assurance. Results were accepted when MICs of these recommended strains were within the acceptable ranges published by the NCCLS National Committee for Clinical Laboratory Standards, Methods for antimicrobial susceptibility testing of anaerobic bacteria. M11-A3. Third edition. National Committee for Clinical Laboratory Standards, Villanova, Pa., 1993).

Detailed Description Text (171):
A solution of 430 mg (1.27 mmol) of the tosylate prepared above and 100 mg (1.53 mmol) of sodium azide in 5 mL dry DMSO was heated in an oil bath (65.degree. C.) for 24 h. The reaction was cooled to room temperature, quenched with water and extracted with EtOAc. The organic extracts were dried (MgSO.sub.4) and the solvent evaporated. The residue was recrystallized from ethyl acetate/hexane to give the azide as light yellow needles: mp 157.5.degree. C. (dec.); [.alpha.].sup.25 D (DMF, c=1.0)=-84.2.degree.; .sup.1 H NMR (DMSO) .delta. 4.18 (d, 1H), 4.33 (dd, 1H), 4.57 (d, 2H), 4.65 (d, 1H), 8.08 (s, 1H); .sup.13 C NMR (DMSO) .delta. 48.11, 52.28, 69.57, 69.71, 119.39, 129.07, 131.82, 143.59, 148.14; MS 211(M+H).sup.+.

Detailed Description Text (253):
A recombinant strain of Mycobacterium bovis bacille Calmette Guerin (rBCG) was employed as the test organism. This strain was transformed with an integrating shuttle vector carrying a firefly luciferase (lux) expression cassette, designated 361-lux. A logarithmic phase culture of rBCG:361-lux was prepared in Middlebrook 7H9 broth (Difco) supplemented with 10% (v/v) ADC enrichment (BBL). 2 ml aliquots were placed in 15 ml screw-cap plastic tubes, and oxygen was removed by addition of 40 .mu.l Oxyrase For Broth (Oxyrase, Inc., Mansfield, Ohio). After 24 h incubation at 37.degree. C., the compounds listed in Table 4 were added to final concentrations of 0, 0.15, 0.31, 0.62, 1.25, 2.5, or 5.0 .mu.g/ml. Following 72 h anaerobic incubation with the drugs at 37.degree. C., bacilli were vortexed on high for 10 sec, pelleted by centrifugation (10 min at 2500 RPM in a Beckman GS-6R centrifuge), and resuspended in fresh media as above. This procedure removed the drugs while recreating the aerobic environment. Since mycobacteria will not grow without oxygen even in the absence of inhibitory compounds, the effect of drugs under anaerobic conditions can only be measured after a suitable recovery period. Accordingly, reaerated, drug-free bacilli were incubated 48 h at 37.degree. C.,

whereupon duplicate 100 .mu.L aliquots of culture were assayed in a Wallac Microlumat LB 96P luminometer. Results are shown in Table 4.

Previous Doc Next Doc Go to Doc#

L6: Entry 32 of 93 File: USPT Feb 16, 1999

DOCUMENT-IDENTIFIER: US 5871952 A
TITLE: Process for selection of Oxygen-tolerant algal mutants that produce H.sub.2

Detailed Description Text (11):
For H.sub.2 -production selection, anaerobically-treated cells (without addition of an O.sub.2 scrubbing system) were added to a selective medium containing different concentrations of metronidazole and 1 mM sodium azide (.sup.8). The azide inhibits endogenous catalase activity. All procedures were done under sterile conditions. The selection medium was also made anaerobic by argon bubbling before introduction of the cells. Oxygen was then added to the medium to achieve final concentrations of O.sub.2 in the gas phase ranging from 0-10% or higher, as required. The final cell suspension was exposed to light of controlled intensity (Fiber-Lite High Intensity Illuminator, model 170-D Dolan-Jenner Industries, Inc.) for 20 minutes. The cells were pelleted out using a clinical centrifuge, washed once with phosphate buffer, pH 7.0, and then once with resuspension buffer (5 mM potassium phosphate buffer containing 1 mM CaCl.sub.2 and 1 mM Mg.sub.2 SO.sub.4). Undiluted and sequential dilutions of each sample were plated on minimal medium and incubated in a growth chamber under low light levels. Survival rates were determined by counting the number of colonies detected on each plate following the treatment, and estimating the percentage of survivors with respect to the number of cells at the beginning of the MNZ treatment.

US005871952A

United States Patent [19]

Ghirardi et al.

[11] Patent Number: 5,871,952

[45] Date of Patent: Feb. 16, 1999

[54] **PROCESS FOR SELECTION OF OXYGEN-TOLERANT ALGAL MUTANTS THAT PRODUCE H_2 UNDER AEROBIC CONDITIONS**

[75] Inventors: **Maria L. Ghirardi; Michael Seibert**, both of Lakewood, Colo.

[73] Assignee: **Midwest Research Institute**, Kansas City, Mo.

[21] Appl. No.: **835,897**

[22] Filed: **Apr. 14, 1997**

[51] **Int. Cl.**[6] **C12Q 1/04**; C12N 1/12

[52] **U.S. Cl.** **435/34**; 435/168; 435/173.1; 435/173.9; 435/244; 435/245; 435/257.1; 435/257.6

[58] **Field of Search** 435/168, 257.1, 435/257.6, 244, 245, 173.1, 173.9, 34

[56] **References Cited**

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4,442,211	4/1984	Greenbaum	435/168
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Primary Examiner—Herbert J. Lilling

Attorney, Agent, or Firm—Ken Richardson

[57] **ABSTRACT**

A process for selection of oxygen-tolerant, H_2-producing algal mutant cells comprising:

(a) growing algal cells photoautotrophically under fluorescent light to mid log phase;

(b) inducing algal cells grown photoautrophically under fluorescent light to mid log phase in step (a) anaerobically by (1) resuspending the cells in a buffer solution and making said suspension anaerobic with an inert gas; (2) incubating the suspension in the absence of light at ambient temperature;

(c) treating the cells from step (b) with metronidazole, sodium azide, and added oxygen to controlled concentrations in the presence of white light.

(d) washing off metronidazole and sodium azide to obtain final cell suspension;

(e) plating said final cell suspension on a minimal medium and incubating in light at a temperature sufficient to enable colonies to appear;

(f) counting the number of colonies to determine the percent of mutant survivors; and

(g) testing survivors to identify oxygen-tolerant H_2-producing mutants.

10 Claims, 5 Drawing Sheets

WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Tuesday, April 05, 2005

Hide?	Set Name	Query	Hit Count
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=AND		
☐	L1	membran$ near3 fragment$	4438
☐	L2	L1 same (oxygen$ or anaerob$ or scavenging or scavenger)	70
☐	L3	L1 same (anaerob$ or scavenging or scavenger)	29
☐	L4	l3 and ($azide or azide$)	2
☐	L5	l1 and ($azide or azide$)	761
☐	L6	l2 and ($azide or azide$)	9
☐	L7	L6 not l4	7
☐	L8	(nan3 or na-n3 or nan$5 or azide or $azide or azide$2).clm.	19671
☐	L9	(nan3 or na-n3 or azide or $azide or azide$2).clm.	7710
☐	L10	L9 and l1.clm.	2
☐	L11	L9 and l1	27

END OF SEARCH HISTORY

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20030138867 A1	July 24, 2003		029	G01N033/554

INT-CL (IPC): C12 Q 1/04; G01 N 33/554; G01 N 33/569

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw De

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Terms	Documents
L3 and ($azide or azide$)	2

Display Format: - Change Format

Previous Page Next Page Go to Doc#

L11: Entry 25 of 27 File: USPT May 21, 1996

DOCUMENT-IDENTIFIER: US 5518858 A
TITLE: Photochromic compositions and materials containing bacteriorhodopsin

Detailed Description Text (2):
The photochromic compositions according to the present invention comprise a bacteriorhodopsin suspension, at least one organic nitrogen-containing compound and a binder. Bacteriorhodopsin is a natural retinal-protein complex isolated from the halophilic bacteria Halobacterium salinarium. Preferably, the bacteriorhodopsin is used in the form of an aqueous suspension of purple membranes. Purple membrane fragments may be isolated from Halobacterium salinarium, ET 1000, according to the procedure described by Becher et al., Prep. Biochem., 1975, Vol. 5, #2, pp 161-178, which is incorporated herein by reference. Mutant bacteriorhodopsin, for example, as disclosed by Hampp et al., Applied Optics, 1992, Vol. 31, No. 11, pp 1834 -1841, incorporated herein by reference, may also be employed. As will be demonstrated in the examples, a preferred composition of the present invention comprises an aqueous suspension of bacteriorhodopsin, gelatin and sodium azide (NaN.sub.3). Preferably, the bacteriorhodopsin and the sodium azide are employed in about a 1:20 molar ratio.

CLAIMS:

3. A photochromic composition as defined by claim 2, further comprising sodium azide in an amount to provide a bacteriorhodopsin:sodium azide molar ratio of 1:20.

8. A photochromic composition as defined by claim 6, wherein the aqueous bacteriorhodospin suspension further comprises sodium azide and the weight ratio of the first compound in the mixture of nitrogen-containing compounds to the sodium azide is from about 1:3 to about 1:5.

L16: Entry 8 of 21 File: USPT Nov 28, 2000

DOCUMENT-IDENTIFIER: US 6153400 A
TITLE: Device and method for microbial antibiotic susceptibility testing

CLAIMS:

7. The method according to claim 1, wherein said solid or semi-solid growth medium comprises one or more of routine media, selective media, differential media, selective-differential media, enriched media, susceptibility media, anaerobic media and fungal media.

8. The method according to claim 1, wherein the microorganism is a bacterium and is selected from the group consisting of aerobic gram positive organisms, aerobic gram negative organisms, anaerobic gram positive organisms, anaerobic gram negative organisms, and cell wall deficient organisms.

34. The method according to claim 7, wherein said selective media comprises one or more of, columbia CNA blood, azide blood agar, chocolate selective, Brucella blood, blood SxT, Strep selective I & II, PEA, Bile Esculin agar, Clostridium difficile agar, skirrow, CCFA, CLED, Pseudomonas cepacia agar, SxT blood agar, TCBS agar, CIN, Moraxella catarrhalis media, and charcoal selective.

38. The method according to claim 7, wherein said anaerobic media comprises one or more of columbia base, PEA, CAN, LKV, BBE, Brucella, BHI blood base, KBE, McClung-Toabe, oxgall, Schaedlers, and Wilkens-Chalgren.

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The probable cause is use of unlimited truncation. Revise your search strategy to use limited truncation.

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Terms	Documents
L12 and L9	21

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L16: Entry 8 of 21 File: USPT Nov 28, 2000

US-PAT-NO: 6153400
DOCUMENT-IDENTIFIER: US 6153400 A

TITLE: Device and method for microbial antibiotic susceptibility testing

DATE-ISSUED: November 28, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Matsumura; Paul M.	Cary	NC		
Hyman; Jones M.	Durham	NC		
Jeffrey; Scott R.	Raleigh	NC		
Maresch; Martin J.	Durham	NC		
Thorpe; Thurman C.	Durham	NC		
Barron; William G.	Bahama	NC		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Akzo Nobel N.V.	Arnhem			NL	03

APPL-NO: 09/ 267863 [PALM]
DATE FILED: March 12, 1999

INT-CL: [07] C12 Q 1/18, C12 Q 1/04, C12 M 1/22, C12 M 1/00

US-CL-ISSUED: 435/32; 435/34, 435/4, 435/305.1, 435/305.2, 435/305.3, 435/289.1, 435/283.1, 435/287.1, 435/288.3, 435/288.4
US-CL-CURRENT: 435/32; 435/283.1, 435/287.1, 435/288.3, 435/288.4, 435/289.1, 435/305.1, 435/305.2, 435/305.3, 435/34, 435/4

FIELD-OF-SEARCH: 435/32, 435/34, 435/4, 435/305.1, 435/305.2, 435/305.3, 435/289.1, 435/283.1, 435/287.1, 435/288.3, 435/288.4

PRIOR-ART-DISCLOSED:

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Search Selected Search ALL Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
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☐	3715280	February 1973	Farmer, III	435/32
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ART-UNIT: 163

PRIMARY-EXAMINER: Leary; Louise N.

ATTY-AGENT-FIRM: Muir; Gregory R.

ABSTRACT:

A method and apparatus for performing microbial antibiotic susceptibility testing include disposable, multi-chambered susceptibility plates and an automated plate handler and image acquisition and processing instrument. The susceptibility plates are inoculated with a microorganism (any suitable organism such as bacteria, fungi, protozoa, algae or viruses) and anti-microbial agent(s) are applied such that the microorganism is exposed to a variety of concentrations, or a gradient of each anti-microbial agent. The plates are then placed in the instrument, which monitors and measures the growth (or lack thereof) of the microorganisms. This data is used to determine the susceptibility of the microorganism to the antibiotics. Such a system automates antimicrobial susceptibility testing using solid media and Kirby-Bauer standardized result reporting. The system provides a level of automation previously associated only with broth microdilution testing, while retaining the advantages of the manual disk diffusion test.

49 Claims, 10 Drawing figures

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L16: Entry 10 of 21 File: USPT Feb 16, 1999

DOCUMENT-IDENTIFIER: US 5871952 A
TITLE: Process for selection of Oxygen-tolerant algal mutants that produce H.sub.2

Abstract Text (3):
(b) inducing algal cells grown photoautrophically under fluorescent light to mid log phase in step (a) anaerobically by (1) resuspending the cells in a buffer solution and making said suspension anaerobic with an inert gas; (2) incubating the suspension in the absence of light at ambient temperature;

CLAIMS:

1. A process for selection of oxygen-tolerant, H.sub.2 -producing algal mutant cells comprising:

(a) growing algal cells photoautotrophically under fluorescent light to mid log phase;

(b) inducing algal cells grown photoautotrophically under fluorescent light to mid log phase in step (a) anaerobically by (1) resuspending the cells in a buffer solution at a range from about 6.8 to about 7.2 pH and making said suspension anaerobic with an inert gas; (2) incubating the suspension in the absence of light at ambient temperature;

(c) treating the cells from step (b) with metronidazole, sodium azide, and added oxygen to controlled concentrations in the presence of white light.

(d) washing off metronidazole and sodium azide to obtain final cell suspension;

(e) plating said final cell suspension on a minimal medium and incubating in light at a temperature sufficient to enable colonies to appear;

(f) counting the number of colonies to determine the percent of mutant survivors; and

(g) testing survivors to identify oxygen-tolerant mutants that produce H.sub.2 at high rates.

3. The process of claim 2, wherein, in step (c) said cells are treated with metronidazole, sodium azide, and oxygen for about 20 minutes; and in step (c) said incubating in light is done at about 24.degree. C.

8. The process of claim 7, wherein metronidazole is present in the amount of about 58 mM; sodium azide is present in the amount of about 1 mM; and white light intensity is about 200 W/m.sup.2.

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Set     Items   Description
S1       1278   'ANAEROB' OR 'ANAEROBA' OR 'ANAEROBE' OR 'ANAEROBEC'
S2       4252   'ANAEROBEIC' OR 'ANAEROBENBAKTERIOLOGIE' OR 'ANAEROBENMEDI-
            UMS' OR 'ANAEROBER' OR 'ANAEROBES' OR 'ANAEROBI'
S3      33397   'ANAEROBIC' OR 'ANAEROBIC BACTERIA //GRAM-NEGATIVE' OR 'AN-
            AEROBIC COCCI //GRAM-NEGATIVE'
S4       4393   'ANAEROBIC RODS //GRAM-NEGATIVE FACULTATIVELY' OR 'ANAEROB-
            IC STRAIGHT, CURVED, AND //GRAM-NEGATIV' OR E40-E48
S5          2   'ANAEROBICCONDITIONS' OR 'ANAEROBICHE'
S6         22   'ANAEROBICITY'
S7      37285   (S1 OR S2 OR S3 OR S4 OR S5 OR S6)
S8        643   S7 AND (CYANIDE? OR AZIDE?)
S9        237   S8 AND (MITOCHONDR? OR (OXYGEN? (2N) (SCAVENG? OR SCRUBB?))
             OR MEMBRAN?)
S10        37   S9 AND (FRACT? OR FRAGMENT? OR (FRENCH (3N) PRESS))
S11         8   S10/2000:2005
S12        29   S10 NOT S11
S13        10   S12 AND ISOLAT?
S14         0   S13 AND MIX?
S15        95   S8/2000:2005
S16       548   S8 NOT S15
S17       102   S16 AND (AGAR? OR MEDI? OR CHAMBER? OR JAR? OR BAG?)
S18        23   S17 AND ISOLAT?
S19        21   S18 NOT S13
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11942686   PMID: 9224285
  An assessment of rat photoreceptor sensitivity to mitochondrial blockade.
  Winkler B S; Dang L; Malinoski C; Easter S S
  Eye Research Institute, Oakland University, Rochester, Michigan 48309,
USA.
  Investigative ophthalmology & visual science (UNITED STATES)  Jul 1997,
 38 (8) p1569-77, ISSN 0146-0404  Journal Code: 7703701
  Contract/Grant No.: EY00168; EY; NEI; EY05230; EY; NEI; EY10015; EY; NEI
  Publishing Model Print
  Document type: Journal Article
  Languages: ENGLISH
  Main Citation Owner: NLM
  Record type: MEDLINE; Completed
  Subfile:  INDEX MEDICUS
  PURPOSE: To report results of functional, biochemical and structural
studies of photoreceptor mitochondria in isolated rat retinas under
conditions of mitochondrial inhibition. METHODS: Dark-adapted rat retinas
were incubated in a modified Ringer's bicarbonate medium under aerobic and
  ***anaerobic***  conditions. Several different procedures were used to
inhibit mitochondrial function; N2, 0.01 mM antimycin A, and 1 and 10 mM
potassium  ***cyanide***  (KCN). Measurements were made of lactic acid
production, retinal adenosine triphosphate (ATP) content, and receptor
potentials. Morphology of the inner segment mitochondria was examined by
electron microscopy. RESULTS: In the presence of N2, 0.01 mM antimycin, or
1 mM KCN, lactic acid production was linear throughout the 60- minute
period; and the rate was similar for each condition. Retinal ATP content
and the amplitude of the receptor potential were also maintained at high
levels after short-term incubations with either N2, antimycin A, or 1 mM
KCN. In contrast, use of 10 mM KCN produced an entirely different set of
results. These effects were studied both at the alkaline pH (8.9) found
when this concentration of KCN was simply added to bicarbonate-buffered
  ***media***  and at the normal pH (after readjustment) of 7.4. With 10 mM
KCN (pH 8.9), retinal lactate production was severely depressed, retinal
ATP content was nearly depleted within 5 to 10 minutes, and the amplitude
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of the receptor potential rapidly declined to a low level. The deleterious effects of 10 mM KCN on these parameters were lessened to varying degrees when pH was readjusted to 7.4. Electron microscopic observations of rat rod inner segments indicated generally excellent survival of these organelles after incubation with either N2, antimycin A, or 1 mM KCN in comparison with their appearance under oxygenated conditions. However, the inner segments were significantly disrupted after incubation of retinas with 10 mM KCN. CONCLUSIONS: Findings suggest that the loss of the receptor potential and depletion of ATP observed with minutes after exposing **isolated** rat retinas to **media** containing 10 mM KCN results from the inhibition of both respiration and glycolysis by this high concentration of KCN. In contrast, when conditions are chosen so that only respiration is impaired (as with N2, antimycin A, or 1 mM KCN) photoreceptor cells are resistant to short-term episodes of mitochondrial inhibition, principally because the upregulation of glycolysis generates sufficient ATP to compensate reasonably well for the loss in mitochondrially produced ATP.

Tags: In Vitro; Research Support, U.S. Gov't, P.H.S.

Descriptors: *Mitochondria--physiology--PH; *Photoreceptors--physiology --PH; Adenosine Triphosphate--metabolism--ME; Anaerobiosis; Animals; Antimycin A--pharmacology--PD; Dark Adaptation--physiology--PH; Electrophysiology; Hydrogen-Ion Concentration; Lactic Acid--biosynthesis --BI; Mitochondria--drug effects--DE; Mitochondria--ultrastructure--UL; Nitrogen--pharmacology--PD; Oxygen--pharmacology--PD; Potassium **Cyanide% %%--pharmacology--PD; Rats; Time Factors**

*** CAS Registry No.: 151-50-8 (Potassium Cyanide); 50-21-5 (Lactic Acid)***

; 56-65-5 (Adenosine Triphosphate); 642-15-9 (Antimycin A); 7727-37-9 (Nitrogen); 7782-44-7 (Oxygen)

Record Date Created: 19970812

Record Date Completed: 19970812

19/9/2

DIALOG(R)File 155:MEDLINE(R)

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11845760 PMID: 9106203

A two-gene ABC-type transport system that extrudes Na+ in Bacillus
subtilis is induced by ethanol or protonophore.

Cheng J; Guffanti A A; Krulwich T A

Department of Biochemistry, Mount Sinai School of Medicine, City of New
York, New York 10029, USA.

Molecular microbiology (ENGLAND) Mar 1997, 23 (6) p1107-20, ISSN 0950-382X Journal Code: 8712028

*** Contract/Grant No.: GM28454; GM; NIGMS***

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Subfile: INDEX MEDICUS

A transposition mutant of Bacillus subtilis (designated JC901) that was isolated on the basis of growth inhibition by Na+ at elevated pH, was
deficient in energy-dependent Na+ extrusion. The capacity of the mutant

JC901 for Na(+)-dependent pH homeostasis was unaffected relative to the wild-type strain, as assessed by regulation of cytoplasmic pH after an
alkaline shift. The site of transposition was near the 3'-terminal end of a

gene, natB, predicted to encode a membrane protein, NatB. NatB possesses

six putative membrane-spanning regions at its C-terminus, and exhibits
modest sequence similarity to regions of eukaryotic Na+/H+ exchangers.

Sequence and Northern blot analyses suggested that natB forms an operon
with an upstream gene, natA. The predicted product of natA is a member of

the family of ATP-binding proteins that are components of transport systems
of the ATP-binding cassette (ABC) or traffic ATPase type. Expression of the

lacZ gene that was under control of the promoter for natB indicated that expression of the operon was induced by ethanol and the protonophore carbonylcyanide p-chlorophenylhydrazone (CCCP), and more modestly, by Na+,
and K+, but not by choline or a high concentration of sucrose. Restoration

of the natAB genes, cloned in a recombinant plasmid (pJY1), complemented the Na(+)-sensitive phenotype of the mutant JC901 at elevated pH and significantly increased the resistance of the mutant to growth inhibition by ethanol and CCCP at pH 7; ethanol was not excluded, however, from the cells expressing natAB, so ethanol-resistance does not result from
NatAB-dependent ethanol efflux. Transformation of the mutant with pJY1 did

markedly enhance the capacity for Na+ efflux, which was further stimulated
by CCCP. In the absence of CCCP, NatAB- mediated *** Na+ efflux was***
stimulated by K+. Concomitant NatAB-dependent K+ uptake occurred, as

monitored by 86Rb+ uptake; this uptake was inhibited by CCCP and is thus
secondary to the primary, electrogenic Na+ efflux. A B. subtilis mutant

strain (BsAJ96) in which most of natA and all of natB was replaced by a spectinomycin-resistance-gene cassette exhibited phenotypic properties
identical to JC901 Under *** anaerobic *** conditions, using a strain of B.
subtilis deleted in atp genes encoding the F1F0-ATPase (BD99-A), glucose energized Na+ exclusion in an arsenate-sensitive manner; this exclusion capacity was absent in a strain deleted both in atp and natAB genes
(BsAJ96-A). We conclude that NatAB is an inducible, ABC transport system

that catalyses ATP-dependent electrogenic Na+ extrusion without
mechanistically coupled proton or K+ uptake. This is a novel mode of Na+

extrusion that is hypothesized to play an inducible role in exclusion of cytotoxic Na+ and in the secondary stimulation of K+ uptake, especially when the function of the membrane as an ion-permeability barrier is
compromised by agents such as alcohols or uncouplers.
*** Tags: Research Support, U.S. Gov't, Non-P.H.S.; Research Support, U.S.***

Gov't, P.H.S.
Descriptors: *ATP-Binding Cassette Transporters--genetics--GE; *Bacillus subtilis--genetics--GE; *Carbonyl Cyanide m-Chlorophenyl Hydrazone --analogs and derivatives--AA; *Ethanol--pharmacology--PD; *Genes, Structural, Bacterial--genetics--GE; *Sodium--metabolism--ME; ATP-Binding Cassette Transporters--physiology--PH; Amino Acid Sequence; Bacillus subtilis--growth and development--GD; Bacillus subtilis--physiology--PH; Base Sequence; Carbonyl Cyanide m-Chlorophenyl Hydrazone --pharmacology--PD; Cell Membrane Permeability--genetics--GE; Cell Membrane Permeability--physiology--PH; Chromosome Mapping; DNA Transposable Elements--genetics--GE; Gene Expression Regulation, Bacterial--genetics--GE ; Gene Expression Regulation, Bacterial--physiology--PH; Genes, Structural, Bacterial--physiology--PH; Genetic Complementation Test; Homeostasis--physiology--PH; Hydrogen-Ion Concentration; Lac Operon --genetics--GE; Molecular Sequence Data; Mutagenesis, Insertional--genetics --GE; Rubidium Radioisotopes--pharmacokinetics--PK; Sodium Radioisotopes --pharmacokinetics--PK
*** Molecular Sequence Databank No.: GENBANK/U30873***
*** CAS Registry No.: 0 (ATP-Binding Cassette Transporters); 0 (DNA***

Transposable Elements); 0 (Rubidium Radioisotopes); 0 (Sodium Radioisotopes); 555-60-2 (Carbonyl Cyanide m-Chlorophenyl Hydrazone); 64-17-5 (Ethanol); 7440-23-5 (Sodium); 946-76-9 (carbonylcyanide 4-chlorophenylhydrazone)
Record Date Created: 19970710
Record Date Completed: 19970710

19/9/3
DIALOG(R)File 155:MEDLINE(R)

11810286 PMID: 9065631
Susceptibility of isolated rat facial nerve to anaerobic *** stress.***
Jund R; Kastenbauer E
Department of Otorhinolaryngology, University of Munich, Klinikum ***Grosshadern, Germany.***
European archives of oto-rhino-laryngology - official journal of the European Federation of Oto-Rhino-Laryngological Societies (EUFOS) - affiliated with the German Society for Oto-Rhino-Laryngolog (GERMANY) 1997, 254 Suppl 1 pS64-7, ISSN 0937-4477 Journal Code: 9002937
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
Ischemic lesions are presumed to be part of many facial nerve ***pathologies, such as Bell's palsy. The response of facial nerve to hypoxia*** ***has not been evaluated previously in an in vitro model. In the present*** study, the effects of transient anaerobic stress on functional ***parameters and their recovery were assessed. Extratemporal rat facial*** nerves were desheathed and incubated in an experimental chamber using ***solutions containing either low (5 mM) or high (25 mM) D-glucose. In some*** of the experiments, 40 microM phenytoin or lidocaine was added to observe ***the effects of membrane stabilizing drugs. Peak height of compound nerve*** action potential (CNAP), extracellular direct current (DC) potential and latency were measured simultaneously during and after a 40-min period of hypoxia, induced by bubbling the solutions with N2 or application of 3 mM ****** cyanide *** . This resulted in a rapid decrease of CNAP and a*** depolarization of the DC potential with a fast and complete post hypoxic ***recovery. Elevated glucose concentrations led to a slower decline in CNAP*** ***and a smaller rise of membrane potential depolarization. This was*** ***accompanied by a slower change of latency. However, post-*** anaerobic ****** ***recovery was always diminished in the high glucose solutions. In*** experiments with phenytoin or lidocaine longer impulse conduction during ***hypoxia was observed. These findings indicate that the availability of*** energy-rich components underlies the complex array of physiological ***derangements seen in ischemia. Membrane-stabilizing drugs show an effect on*** ***signal conduction during hypoxia and need further exploration.***
*** Tags: Male; Research Support, Non-U.S. Gov't***

Descriptors: *Anoxia--physiopathology--PP; *Facial Nerve--physiopathology --PP; Action Potentials--drug effects--DE; Action Potentials--physiology --PH; Anaerobiosis; Anesthetics, Local--pharmacology--PD; Animals; Anticonvulsants--pharmacology--PD; Cyanides--pharmacology--PD; Diseas e Models, Animal; Disease Susceptibility; Facial Nerve--blood supply--BS; Facial Nerve--drug effects--DE; Facial Paralysis--etiology--ET; Facial Paralysis--physiopathology--PP; Glucose--administration and dosage--AD; Glucose--pharmacology--PD; Ischemia--complications--CO; Ischemia --physiopathology--PP; Lidocaine--pharmacology--PD; Membrane Potentials --drug effects--DE; Membrane Potentials--physiology--PH; Neural Conduction --drug effects--DE; Neural Conduction--physiology--PH; Neuroprotective Agents--pharmacology--PD; Nitrogen--pharmacology--PD; Phenytoin--pharmacolo gy--PD; Rats; Rats, Wistar; Reaction Time
*** CAS Registry No.: 0 (Anesthetics, Local); 0 (Anticonvulsants); 0***

(Cyanides); 0 (Neuroprotective Agents); 137-58-6 (Lidocaine); 50-99-7 (Glucose); 57-41-0 (Phenytoin); 7727-37-9 (Nitrogen)
Record Date Created: 19970603
Record Date Completed: 19970603

19/9/4
DIALOG(R)File 155:MEDLINE(R)

11688916 PMID: 9022709
Purification and spectroscopic characterization of a recombinant chloroplastic hemoglobin from the green unicellular alga Chlamydomonas ***eugametos.***
Couture M; Guertin M
*** Department of Biochemistry, Laval University, Quebec, Canada.***
European journal of biochemistry / FEBS (GERMANY) Dec 15 1996, 242 (3) p779-87, ISSN 0014-2956 Journal Code: 0107600
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
Hemoglobins (Hb), which have the important task of delivering molecular oxygen by facilitating its reversible binding to the heme, are now thought to have evolved in all groups of organisms including prokaryotes, fungi, ***plants and animals. Our recent finding of a light-inducible chloroplastic***

Hb in the green unicellular alga Chlamydomonas eugametos has further extend this idea, while raising questions about the function that an Hb could play ***in a high oxygen environment such as in the chloroplast. In order to***

understand the role played by this new Hb, we have undertaken its ***biochemical characterization. To facilitate the characterization of***

Chlamydomonas Hb, which represents less than 0.01% of the soluble protein

in the green alga, the protein has been expressed in Escherichia coli and ***purified to apparent homogeneity. The purified recombinant protein***

possesses a non-covalently bound iron-protoporphyrin IX heme. The oxy form

of the recombinant Hb. purified directly from bacterial cells, is very

stable, with a measured half-life of 7 days at pH 8 and has an ultraviolet/visible spectrum similar to those of the related cytoplasmic Hbs of the ciliated protozoa Paramecium and Tetrahymena and of the ***cyanobacterium Nostoc commune. In contrast to what has been reported for***

oxymyoglobins and oxyhemoglobins, the dioxygen molecule bound to the L1637
Hb can be reduced by the electron-transfer mediator phenazine
methosulfate in the presence of NADPH, indicating that the heme pocket of
Chlamydomonas Hb may be more accessible to small molecules. With regard to

this we found that when the small reducing agent sodium dithionite is used
to reduce the met form, it must be removed anaerobically from the Hb
prior to oxygenation of the protein to stably produce the oxy form.

Otherwise, the oxy form is obtained readily from the met form under an
oxygenic atmosphere when ferredoxin and ferredoxin NADP+ reductase are used
to enzymically reduce the Hb. Finally, the spectra of the deoxy and met

forms were unusual, the heme being partly low-spin at physiological pH.

These results confirm the existence of a reversible oxygen-binding protein
in the chloroplast of C. eugametos. The unusual spectral and biochemical

properties of the protein may reflect a specialized function for this Hb.
*** Tags: Research Support, Non-U.S. Gov't***
Descriptors: *Chlamydomonas--chemistry--CH; *Chloroplasts--chemistry--CH;
*Hemoglobins--isolation and purification--IP; Amino Acid Sequence;
Animals; Azides--chemistry--CH; Carbon Monoxide--chemistry--CH;
Cyanides--chemistry--CH; Hemoglobins--chemistry--CH; Hydrogen-Ion
Concentration; Molecular Sequence Data; Oxidation-Reduction; Oxygen
--chemistry--CH; Recombinant Proteins; Sequence Alignment; Sequence
Homology, Amino Acid; Spectrum Analysis
*** Molecular Sequence Databank No.: GENBANK/D12916; GENBANK/D13920;***

GENBANK/M92437; GENBANK/X72915; GENBANK/X72916
*** CAS Registry No.: 0 (Azides); 0 (Cyanides); 0 (Hemoglobins); 0***

(Recombinant Proteins); 630-08-0 (Carbon Monoxide); 7782-44-7 (Oxygen)
Record Date Created: 19970318
Record Date Completed: 19970318

19/9/5
DIALOG(R)File 155:MEDLINE(R)
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11098570 PMID: 7669068
*** Effect of the antiretroviral agent hypericin on rat liver mitochondria.***
Utsumi T; Okuma M; Kanno T; Takehara Y; Yoshioka T; Fujita Y; Horton A A;
Utsumi K
Department of Internal Medicine, Faculty of Medicine, Kyoto University,
Japan.
Biochemical pharmacology (ENGLAND) Aug 25 1995, 50 (5) p655-62,
ISSN 0006-2952 Journal Code: 0101032
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS; AIDS/HIV
The photosensitizing effect of hypericin (HY), an antiretroviral agent,
on the functions of isolated rat liver mitochondria has been
investigated. The respiratory control ratio (RCR), ADP/O and membrane

potential of mitochondria were decreased by HY in a light-dependent manner.

Uncoupled respiration of mitochondria in the presence of succinate was also
inhibited by HY in a light-dependent manner. The ID50 of hypericin for

these inhibitions was approximately 0.5 microM. These inhibitory effects of

HY were not observed when photosensitization was conducted under anaerobic **conditions and were not affected by desferrioxamine (DSF)**
or superoxide dismutase (SOD). Upon photosensitization of HY, mitochondria

consumed oxygen in the absence of respiratory substrate with concomitant
formation of thiobarbituric acid reactive substance (TBARS). The amount of

oxygen consumed was 100-times greater than that of TBARS formed. The oxygen

uptake was partially inhibited by NaN3, and formation of TBARS was
inhibited by DSF. Upon photosensitization of HY in the presence of

mitochondrial membranes, the electron spin resonance (ESR) signal of
2,2-dimethyl-5-hydroxy-1-pyrrolidinyloxyl (DMPO/.OH) was increased by a

mechanism which was suppressed by DSF. An ESR signal for singlet oxygen

bound to 2,5-dimethylfuran, 2,2,6,6-tetramethyl-4-piperidone (TEMP) was
also detected under light in the presence of mitochondria. This signal of

the TEMP-N-oxyl radical (TEMPO) was decreased by azide **, which**
physically quenches singlet oxygen, but was increased by DSF. These results

indicate that HY might inhibit mitochondrial functions by a type II photodynamic mechanism but that lipid peroxidation of biological membranes through an active oxygen-mediated **photodynamic mechanism is not**
involved.
*** Tags: Research Support, Non-U.S. Gov't***
Descriptors: *Antiviral Agents--pharmacology--PD; *Mitochondria, Liver --drug effects--DE; *Perylene--analogs and derivatives--AA; Animals; Cyclic N-Oxides--chemistry--CH; Electron Spin Resonance Spectroscopy; HIV-1--drug effects--DE; Intracellular Membranes--drug effects--DE; Intracellular Membranes--metabolism--ME; Lipid Peroxidation; Mitochondria, Liver --enzymology--EN; Mitochondria, Liver--metabolism--ME; Oxidative Phosphorylation; Oxidoreductases--metabolism--ME; Oxygen--metabolism--ME; Perylene--pharmacology--PD; Rats; Spin Labels
*** CAS Registry No.: 0 (Antiviral Agents); 0 (Cyclic N-Oxides); 0 (Spin***

Labels); 198-55-0 (Perylene); 2564-83-2 (TEMPO); 548-04-9 (hypericin) ; 55482-03-6 (2,2-dimethyl-5-hydroxy-1-pyrrolidinyloxy); 7782-44-7 (Oxygen)
*** Enzyme No.: EC 1. (Oxidoreductases); EC 1.- (succinate oxidase)***
Record Date Created: 19951012
Record Date Completed: 19951012

19/9/6
DIALOG(R)File 155:MEDLINE(R)
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10968528 PMID: 7747947
Anaerobic **oxidation of ammonium is a biologically** mediated
*** process.***
van de Graaf A A; Mulder A; de Bruijn P; Jetten M S; Robertson L A; Kuenen J G
Kluyver Laboratory of Biotechnology, Department of Microbiology and
Enzymology, Delft University of Technology, The Netherlands.
Applied and environmental microbiology (UNITED STATES) Apr 1995, 61 (4) p1246-51, ISSN 0099-2240 Journal Code: 7605801
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH

Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
A newly discovered process by which ammonium is converted to dinitrogen gas under anaerobic conditions (the Anammox process) has now been
examined in detail. In order to confirm the biological nature of this

process, *** anaerobic *** batch culture experiments were used. All of the
ammonium provided in the medium was oxidized within 9 days. In control

experiments with autoclaved or raw wastewater, without added sludge or with added sterilized (either autoclaved or gamma irradiated) sludge, no changes
in the ammonium and nitrate concentrations were observed. Chemical

reactions could therefore not be responsible for the ammonium conversion.

The addition of chloramphenicol, ampicillin, 2,4-dinitrophenol, carbonyl cyanide m-chlorophenyl-hydrazone (CCCP), and mercuric chloride (HgIICl2) completely inhibited the activity of the ammonium-oxidizing
sludge. Furthermore, the rate of ammonium oxidation was proportional to the

initial amount of sludge used. It was therefore concluded that

****** anaerobic *** ammonium oxidation was a microbiological process. As the***
experiments were carried out in an oxygen-free atmosphere, the conversion
of ammonium to dinitrogen gas did not even require a trace of O2. That the

end product of the reaction was nitrogen gas has been confirmed by using
15NH4+ and 14NO3-. The dominant product was 14-15N2. Only 1.7% of the total

labelled nitrogen gas produced was 15-15N2. It is therefore proposed that

the N2 produced by the Anammox process is formed from equimolar amounts of
NH4+ and NO3-.
*** Tags: Research Support, Non-U.S. Gov't***
Descriptors: *Ammonium Compounds--chemistry--CH; *Water Pollutants, Chemical--isolation and purification--IP; Ammonium Compounds --metabolism--ME; Anaerobiosis; Nitrates--chemistry--CH; Nitrosomonas --metabolism--ME; Oxidation-Reduction; Water Microbiology; Water Pollutants, Chemical--metabolism--ME
*** CAS Registry No.: 0 (Ammonium Compounds); 0 (Nitrates); 0 (Water***

Pollutants, Chemical)
Record Date Created: 19950612
Record Date Completed: 19950612

19/9/7
DIALOG(R)File 155:MEDLINE(R)

10531975 PMID: 8119278
Purification and characterization of the periplasmic nitrate reductase
from Thiosphaera pantotropha.
Berks B C; Richardson D J; Robinson C; Reilly A; Aplin R T; Ferguson S J
*** Department of Biochemistry, University of Oxford, England.***
European journal of biochemistry / FEBS (GERMANY) Feb 15 1994, 220 (1) p117-24, ISSN 0014-2956 Journal Code: 0107600
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM

*** of strict *** anaerobes *** in polymicrobial sample. The efficacy of three***
inhibitors to select strict anaerobic **bacteria in the polymicrobial**
sample had been studied. First step: The most frequent *** anaerobes ***
encountered in the infections are isolated **in the** agar
Columbia containing the different inhibitors. This step allowed us to check

the inhibition of the germ we have to *** isolate *** . Next step:
polymicrobial mixtures were made. The composition of which is very similar

to the samples we receive in the laboratory. The swarming Proteus is the

facultative anaerobic **germ which gives us difficulties when**
****** isolating *** strict *** anaerobic *** bacteria. Then, the different***
mixtures were isolated **separately in the** agar **in which the**
inhibitors were added. The plates containing *** Azide *** of Na and PEA gave
us the best results.
Tags: Comparative Study
Descriptors: *Azides**--pharmacology--PD; *Bacteria,** Anaerobic --isolation **and purification--IP; *Bacteriological Techniques; *Nalidixic Acid--pharmacology--PD; *Phenylethyl Alcohol--pharmacology--PD; Bacteria,** Anaerobic**--drug effects--DE; Culture** Media; **Sodium** Azide; **Species Specificity**
*** CAS Registry No.: 0 (Azides); 0 (Culture Media); 26628-22-8 (Sodium***

Azide); 389-08-2 (Nalidixic Acid); 60-12-8 (Phenylethyl Alcohol)
Record Date Created: 19931021
Record Date Completed: 19931021

19/9/9
DIALOG(R)File 155:MEDLINE(R)
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10228704 PMID: 8325855
ATP synthesis energized by delta pNa and delta psi in proteoliposomes
containing the F0F1-ATPase from Propionigenium modestum.
Dmitriev O; Deckers-Hebestreit G; Altendorf K
Universitat Osnabruck, Fachbereich Biologie/Chemie, Arbeitsgruppe
Mikrobiologie, Osnabruck, Germany.
Journal of biological chemistry (UNITED STATES) Jul 15 1993, 268 (20) p14776-80, ISSN 0021-9258 Journal Code: 2985121R
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
After incorporation of the purified Na(+)-translocating F0F1-ATPase from Propionigenium modestum into preformed phospholipid vesicles the synthesis of ATP from ADP and inorganic phosphate could be observed under conditions where a valinomycin-mediated **K+ diffusion potential (delta psi)**
and/or a Na+ concentration gradient (delta pNa) were imposed. This reaction

was not inhibited by the protonophore carbonyl cyanide
p-tri-fluoromethoxyphenylhydrazone (FCCP). Furthermore, the delta

pNa-driven ATP synthesis was stimulated by FCCP. In contrast, the addition

of the Na+/H+ antiporter monensin or of the F0F1 inhibitors

N,N'-dicyclohexylcarbodiimide and venturicidin abolished the synthesis of
ATP completely. Finally, delta pNa alone was able to elicit ATP synthesis,

when a Na+ concentration gradient of sufficient magnitude was applied. In

this case ATP synthesis occurred above a threshold level of approximately 120 mV and, furthermore, delta psi and delta pNa appear to be equivalent as
driving forces for this process. Therefore, the data provide firm evidence

for the concept that delta"mu Na+ is the primary driving force for the
synthesis of ATP in P. modestum.
*** Tags: Research Support, Non-U.S. Gov't***
Descriptors: *Adenosine Triphosphate--biosynthesis--BI; *Bacteria, Anaerobic--enzymology--EN; *Proteolipids--metabolism--ME; *Proton-Translocating ATPases--metabolism--ME; Adenosine Triphosphate--antagonists and inhibitors--AI; Biological Transport; Carbonyl Cyanide p-Trifluoromethoxyphenylhydrazone--pharmacology--PD; Dicyclohexylcarbodiimide--pharmacology--PD; Electrophysiology; Liposomes; Monensin--pharmacology--PD; Phosphorylation; Potassium--metabolism--ME; Proton-Translocating ATPases--antagonists and inhibitors--AI; Proton-Translocating ATPases--isolation and purification--IP; Sodium--metabolism--ME; Valinomycin--pharmacology--PD; Venturicidins--pharmacology--PD
*** CAS Registry No.: 0 (Liposomes); 0 (Proteolipids); 0 (Venturicidins)***

; 0 (proteoliposomes); 17090-79-8 (Monensin); 2001-95-8 (Valinomycin); 370-86-5 (Carbonyl Cyanide p-Trifluoromethoxyphenylhydrazone); 538-75-0 (Dicyclohexylcarbodiimide); 56-65-5 (Adenosine Triphosphate); 7440-09-7 (Potassium); 7440-23-5 (Sodium)
*** Enzyme No.: EC 3.6.3.14 (Proton-Translocating ATPases)***
Record Date Created: 19930812
Record Date Completed: 19930812

19/9/10
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 The Dialog Corp. All rts. reserv.

09407980 PMID: 2039603 Record Identifier: 91248415
Reoxygenation injury in rat hepatocytes: mediation by O2/H2O2
liberated by sources other than xanthine oxidase.
de Groot H; Brecht M
Institut fur Physiologische Chemie I, Heinrich-Heine-Universitat
Dusseldorf.
Biological chemistry Hoppe-Seyler (GERMANY) Jan 1991, 372 (1) p35-41, ISSN 0177-3593 Journal Code: 8503054
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Other Citation Owner: NASA
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
The mechanism of reoxygenation injury was studied in primary cultures of
****** isolated *** hepatocytes from rat liver. Reoxygenation injury, which***
affected up to 80% of the hepatocytes, was only inducible within a certain
time window of the *** anaerobic *** incubation. Reintroduction of oxygen
before this vulnerable period ensured the survival of the hepatocytes.

After the vulnerable period upon reintroduction of oxygen the hepatocytes
continued to die in the same way as the *** anaerobic *** control.
Allopurinol had no effect on reoxygenation injury. From the inhibitors of

the mitochondrial respiratory chain, both cyanide and antimycin A
increased injury while rotenone was without significant effect on injury.

Reoxygenation injury was significantly diminished by superoxide dismutase,
but not by catalase. When added together, superoxide dismutase and catalase

completely prevented reoxygenation injury. The results demonstrate that

reoxygenation injury in hepatocytes is mediated by the combined
action of both O2- and H2O2. These reduced oxygen species are not liberated

by xanthine oxidase but possibly originate from the mitochondrial
respiratory chain.
*** Tags: Male; Research Support, Non-U.S. Gov't***
Descriptors: *Hepatitis, Toxic--metabolism--ME; *Hydrogen Peroxide --metabolism--ME; *Oxygen--toxicity--TO; *Xanthine Oxidase--metabolism--ME ; Allopurinol--pharmacology--PD; Anaerobiosis; Animals; Antimycin A --toxicity--TO; Catalase--pharmacology--PD; Cells, Cultured; Cyanides --toxicity--TO; Mitochondria--metabolism--ME; Rats; Rats, Inbred Strains; Rotenone--toxicity--TO; Superoxide Dismutase--pharmacology--PD
*** CAS Registry No.: 0 (Cyanides); 315-30-0 (Allopurinol); 642-15-9***

(Antimycin A); 7722-84-1 (Hydrogen Peroxide); 7782-44-7 (Oxygen); 83-79-4 (Rotenone)
*** Enzyme No.: EC 1.1.3.22 (Xanthine Oxidase); EC 1.11.1.6 (Catalase);***

EC 1.15.1.1 (Superoxide Dismutase)
Record Date Created: 19910711
Record Date Completed: 19910711

19/9/11
DIALOG(R)File 155:MEDLINE(R)
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09169808 PMID: 2241708
Characterization of a gram-positive bacterium from the proventriculus of
budgerigars (Melopsittacus undulatus).
Scanlan C M; Graham D L
Department of Veterinary Microbiology and Parasitology, Texas A&M
University, College Station 77843-4467.
Avian diseases (UNITED STATES) Jul-Sep 1990, 34 (3) p779-86, ISSN 0005-2086 Journal Code: 0370617
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
The cellular, cultural, and biochemical characteristics of eight isolates of a large gram-positive bacillus that are commonly observed as apparently normal flora in the proventriculus of budgerigars
(Melopsittacus undulatus) were determined. The bacterium was highly

pleomorphic and changed markedly in both diameter and length when
subcultured on *** agar *** *** media ***. The bacterium was facultative
anaerobic and capnophilic, hemolytic on blood agar, and formed
flat colonies with irregular edges after incubation for several days. All

isolates grew on sodium azide agar but did not grow on
MacConkey *** agar ***. The *** isolates *** were catalase-negative and
oxidase-negative and did not reduce nitrate. All *** isolates *** failed to

utilize arginine, lysine, ornithine or tryptophane but produced acid from
glucose, galactose, levulose, maltose, melibiose, starch, and sucrose. All

****** isolates *** produced acetoin from glucose and hydrolyzed esculin.
The***
eight isolates could not be identified to either genus or species
level based on the descriptions of currently classified organisms in the
division Firmicutes as described in Bergey's Manual of Systematic
Bacteriology.
Descriptors: *Gram-Positive Bacteria--physiology--PH; *Proventriculus
--microbiology--MI; *Psittaciformes--microbiology--MI; Animals; Anti-Bacter
ial Agents--pharmacology--PD; Gram-Positive Bacteria--drug effects--DE;
Gram-Positive Bacteria--growth and development--GD
*** CAS Registry No.: 0 (Anti-Bacterial Agents)***
Record Date Created: 19901207
Record Date Completed: 19901207

19/9/12
DIALOG(R)File 155:MEDLINE(R)

09082761 PMID: 2641290
31P and 13C NMR studies of isolated perfused hematopoietic cells
from leukemic mice.
Megnin F; Nedelec J F; Dimicoli J L; Lhoste J M
*** Institut Curie, Biologie, (INSERM U.219), Centre Universitaire, Orsay,***

France.
NMR in biomedicine (ENGLAND) Jun 1989, 2 (1) p27-33, ISSN 0952-3480
Journal Code: 8915233
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
The myeloproliferative leukemic virus (MPLV) induces within 2-3 weeks a
massive infiltration of the adult mouse liver by hematopoietic leukemic
cells. Since the metabolism of the infiltrated organ might be correlated

with an interaction of two cell populations, it was decided to study the
****** isolated *** hematopoietic cells separately. The metabolism of
these***
cells embedded in an agarose gel and perfused with labeled substrates
was investigated using 31P and 13C NMR. Using [1-13C]glucose as precursor,

sequential 13C NMR spectra showed that the hematopoietic cells were able to
store glucose as [1-13C]glycogen and to metabolize it through the
glycolytic pathway to give [3-13C]lactate as sole end-product. The liver

neoglucogenic substrates: [2-13C]pyruvate and [3-13C]alanine are not
metabolized by these cells. This suggests that the tricarboxylic acid cycle

was not efficient. To investigate further the glycolytic properties of the

cells, 10 mM sodium azide was added to the medium containing
[1-13C]glucose. When compared to the aerobic conditions, a 40% decrease of

nucleotides (0.10 vs 0.17 mumole NTP/10(9) cells), a degradation of

[1-13C]glycogen and an increase of ca 35% of the glycolytic rate were
observed. The analysis of 13C NMR spectra of the perfusates at the end of

the perfusion indicates a total conversion of [1-13C]glucose into
[3-13C]lactate and [3-13C]pyruvate under *** anaerobic *** conditions. These
results permit a better understanding of the metabolism of the perfused leukemic livers which are extensively infiltrated by these hematopoietic
cells.
Tags: Female; In Vitro
Descriptors: *Hematopoietic Stem Cells--pathology--PA; *Leukemia, Experimental--pathology--PA; Animals; Hematopoietic Stem Cells--metabolism --ME; Leukemia, Experimental--metabolism--ME; Liver--metabolism--ME; Liver --pathology--PA; Magnetic Resonance Spectroscopy; Mice
Record Date Created: 19900927
Record Date Completed: 19900927

19/9/13
DIALOG(R)File 155:MEDLINE(R)

08014789 PMID: 3116922
Isolation and characterization of a mutant of Schwanniomyces
castellii with altered respiration.
Poinsot C; Moulin G; Claisse M; Galzy P
*** Chaire de Genetique et Microbiologie, INRA-ENSA, Montpellier, France.***
Antonie van Leeuwenhoek (NETHERLANDS) 1987, 53 (2) p65-75, ISSN 0003-6072 Journal Code: 0372625
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
We have tried to isolate respiratory deficient mutants of the amylolytic yeast Schwanniomyces castellii CBS 2863 after mutagenesis with
acriflavine. One of the mutants called DR 12 has been studied in more

detail. Pasteur effect present in the wild-type is lost in the mutant, on

the contrast an obvious Crabtree effect was observed: fermentation was
almost as active in aerobiosis as in anaerobiosis. Moreover, the rate of

anaerobic fermentation of the mutant was almost twice that of the
wild type. This mutant was cytochrome b-deficient while the amount of the

other cytochromes was larger than in the wild-type. Moreover, the level of

these remaining cytochromes in the mutant was higher on non-repressive
medium than on glucose medium. However, the fact that the mutant DR 12

retained a cyanide-sensitive respiration and that it was able to grow
on ethanol as a non-fermentable substrate is noteworthy.
Tags: Comparative Study
Descriptors: *Fermentation; *Oxygen Consumption; *Saccharomycetales --metabolism--ME; Acriflavine; Aerobiosis; Antimycin A--pharmacology--PD; Carbon Dioxide--metabolism--ME; Culture Media; Cytochromes--analysis --AN; Glucose--metabolism--ME; Mutation; Potassium Cyanide --pharmacology--PD; Saccharomycetales--drug effects--DE; Saccharomycetales --genetics--GE; Saccharomycetales--isolation and purification--IP
*** CAS Registry No.: 0 (Culture Media); 0 (Cytochromes); 124-38-9***

(Carbon Dioxide); 151-50-8 (Potassium Cyanide); 50-99-7 (Glucose); 642-15-9 (Antimycin A); 8048-52-0 (Acriflavine)
Record Date Created: 19871116
Record Date Completed: 19871116

19/9/14
DIALOG(R)File 155:MEDLINE(R)
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07621116 PMID: 3525201
Facilitated glucose transport across the retinal pigment epithelium of
the bullfrog (Rana catesbeiana).
DiMattio J; Streitman J
Experimental eye research (ENGLAND) Jul 1986, 43 (1) p15-28, ISSN 0014-4835 Journal Code: 0370707
*** Contract/Grant No.: EY-01340; EY; NEI; EY-04418; EY; NEI***
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
Transport studies of glucose analogs [3H] 3-O-methyl-D-glucose (mD-glu) and L-[14C]glucose (L-glu) across the isolated retinal pigment epithelium (RPE) of the bullfrog was undertaken to determine whether the glucose transport mechanism was dependent upon the postulated ion-transport
scheme and/or whether glucose transport is insulin- mediated ***. In***
addition, metabolic inhibitors were tested to explore the energy
requirements of glucose transport across the RPE. Flux studies of mD-glu

and L-glu performed with mounted RPE tissues, with short circuit current (SCC) and potential difference (PD) monitored via automatic voltage clamp apparatus, indicate that transport is clearly stereospecific with D-glucose
being transported at least 13 times faster than L-glucose. The system was

found to be saturable with a Km of about 24 mM glucose and Vmax of 1400
nmol cm-2 hr-1. Unidirectional Michaelis-Menten constants indicate that the

RPE glucose carrier is accessible for transport from either the choroid or retinal side and a bidirectional facilitated diffusion mechanism is
suggested. Insulin had no effect on either ion transport (SCC) or glucose

transport (passive or facilitated). Both aerobic and *** anaerobic *** energy
inhibitors decreased ion transport to less than 25% of control, but had
little effect, if any, on glucose transport across the *** isolated *** RPE.
Sodium iodoacetate decreased ion transport by 90% of control, but a much slower decrease in facilitated glucose transport of 22% of control suggests
that carrier energy requirements, if any, are not direct or immediate.

Osmotic studies performed with sucrose and glucose suggest that elevations in osmolarity increase passive glucose movement and decrease facilitated
glucose-transport rates. Glucose was found to be much more detrimental to

glucose transport than sucrose, suggesting that at high concentrations molecular glucose decreases facilitated transport and increases passive glucose movement by a mechanism other than can be accounted for by osmotic
considerations. A model for RPE glucose transport, consistent with current

data, is proposed which translocates D-glucose, via an alternating
conformational change of the glucose carrier. This carrier does not require

a direct supply of metabolic energy, nor a functioning ion-transport
mechanism. At a given moment, a single binding site for D-glucose is

postulated to be available on either side of the RPE membrane for glucose translocation, although binding site affinity for glucose could differ on
each side.
*** Tags: In Vitro; Research Support, U.S. Gov't, P.H.S.***
Descriptors: *Glucose--metabolism--ME; *Pigment Epithelium of Eye --metabolism--ME; 3-O-Methylglucose; Animals; Azides--pharmacology --PD; Biological Transport, Active--drug effects--DE; Dinitrophenols --pharmacology--PD; Dose-Response Relationship, Drug; Insulin--pharmacology --PD; Iodoacetates--pharmacology--PD; Kinetics; Membrane Potentials--drug effects--DE; Methylglucosides--metabolism--ME; Osmolar Concentration; Rana catesbeiana; Sodium Azide; Sucrose--metabolism--ME
*** CAS Registry No.: 0 (Azides); 0 (Dinitrophenols); 0 (Iodoacetates);***

0 (Methylglucosides); 11061-68-0 (Insulin); 146-72-5 (3-O-Methylglucose); 26628-22-8 (Sodium Azide); 50-99-7 (Glucose); 57-50-1 (Sucrose)
Record Date Created: 19860918
Record Date Completed: 19860918

19/9/15
DIALOG(R)File 155:MEDLINE(R)
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07010097 PMID: 6747279
*** Lactate dehydrogenase isozymes in developing rat oral mucosa. A***

comparative study of LDH biochemistry and histochemistry.
Sjogren S
journal of histochemistry and cytochemistry - official journal of the Histochemistry Society (UNITED STATES) Sep 1984, 32 (9) p958-64, ISSN 0022-1554 Journal Code: 9815334
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
Histochemical lactic acid dehydrogenase (LDH) staining methods seem
unable to demonstrate the total LDH activity in tissue sections. An

analysis was made of LDH tissue staining methods applied on LDH zymograms.

The menadione-mediated LDH staining of tissue sections can not
possibly reflect true LDH activity. The addition of *** cyanide *** also
slightly inhibited LDH activity. The *** cyanide *** inhibition was confirmed
via LDH assay and found to be competitive in character. It is concluded

that cyanide and menadione should be replaced by agents suitable from
both a histochemical and a biochemical point of view. Based on the findings

of this study the presence of LDH in oral epithelium was analyzed.

Evidently LDH of the oral epithelium is basically anaerobic in character and located primarily in spinosum/granulosum layers and only
sparsely in the basal layer.
Tags: Comparative Study
Descriptors: *L-Lactate Dehydrogenase--metabolism--ME; *Mouth Mucosa --enzymology--EN; Animals; Histocytochemistry; Isoenzymes; Kinetics; L-Lactate Dehydrogenase--isolation and purification--IP; Liver --enzymology--EN; Muscles--enzymology--EN; Myocardium--enzymology--EN; Organ Specificity; Rats

*** CAS Registry No.: 0 (Isoenzymes)***
*** Enzyme No.: EC 1.1.1.27 (L-Lactate Dehydrogenase)***
Record Date Created: 19840920
Record Date Completed: 19840920

19/9/16
DIALOG(R)File 155:MEDLINE(R)

06939985 PMID: 6143758
*** Guanylate cyclase from bovine lung. Evidence that enzyme activation by***

phenylhydrazine is *** mediated *** by iron-phenyl hemoprotein complexes.

Ignarro L J; Wood K S; Ballot B; Wolin M S
Journal of biological chemistry (UNITED STATES) May 10 1984, 259 (9) p5923-31, ISSN 0021-9258 Journal Code: 2985121R
*** Contract/Grant No.: AM 17692; AM; NIADDK; HL 06225; HL; NHLBI; HL 27713;***

HL; NHLBI
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
The mechanism of activation of soluble guanylate cyclase purified from
bovine lung by phenylhydrazine is reported. Heme-deficient and

heme-containing forms of guanylate cyclase were studied. Heme-deficient

enzyme was activated 10-fold by NO but was not activated by
phenylhydrazine. Catalase or methemoglobin enabled phenylhydrazine to

activate guanylate cyclase 10-fold and enhanced activation by NO to over
100-fold. Heme-containing enzyme was activated only 3-fold by

phenylhydrazine but over 100-fold by NO. Added hemoproteins enhanced enzyme

activation by phenylhydrazine to 12-fold without enhancing activation by
NO. Reducing or *** anaerobic *** conditions inhibited, whereas oxidants
enhanced enzyme activation by phenylhydrazine plus catalase, and KCN had no
effect. In contrast, enzyme activation by NO and NaN3 was inhibited by

oxidants or KCN. NaN3 required native catalase, whereas phenylhydrazine

also utilized heat-denatured catalase for enzyme activation. Thus, the

mechanism of guanylate cyclase activation by phenylhydrazine differed from
that by NO or NaN3. Guanylate cyclase activation by phenylhydrazine

resulted from an O2-dependent reaction between phenylhydrazine and
hemoproteins to generate stable iron-phenyl hemoprotein complexes. These

complexes activated guanylate cyclase in the absence of O2, but lost
activity after acidification, basification, or heating. Gel filtration of

prereacted mixtures of [U-14C]phenylhydrazine plus hemoproteins resulted in co-chromatography of radioactivity, protein, and guanylate cyclase stimulating activity, and yielded a phenyl-hemoprotein binding
stoichiometry of four under specified conditions (one phenyl/heme).

[14C]Phenyl bound to heme-containing but not heme-deficient guanylate
cyclase and binding correlated with enzyme activation. Moreover, reactions

between enzyme and iron-[14C] phenyl hemoprotein complexes resulted in the exchange or transfer of iron-phenyl heme to guanylate cyclase and this
correlated with enzyme activation.
*** Tags: Research Support, U.S. Gov't, P.H.S.***
Descriptors: *Guanylate Cyclase--metabolism--ME; *Hemeproteins --pharmacology--PD; *Iron--pharmacology--PD; *Lung--enzymology--EN; *Phenylhydrazines--pharmacology--PD; Animals; Cattle; Enzyme Activation; Flavin Mononucleotide--pharmacology--PD; Guanylate Cyclase--isolation and purification--IP; Heme--analysis--AN; Kinetics; Molecular Weight; Nitric Oxide--pharmacology--PD; Potassium Cyanide--pharmacology--PD; Protein Binding
*** CAS Registry No.: 0 (Hemeproteins); 0 (Phenylhydrazines); 100-63-0***

(phenylhydrazine); 10102-43-9 (Nitric Oxide); 146-17-8 (Flavin Mononucleotide); 14875-96-8 (Heme); 151-50-8 (Potassium Cyanide); 7439-89-6 (Iron)
*** Enzyme No.: EC 4.6.1.2 (Guanylate Cyclase)***
Record Date Created: 19840614
Record Date Completed: 19840614

19/9/17
DIALOG(R)File 155:MEDLINE(R)

06847943 PMID: 6676629
A selective medium for isolation and presumptive identification of
the Bacteriodes fragilis group.
Ushijima T; Takahashi M; Tatewaki K; Ozaki Y
Microbiology and immunology (JAPAN) 1983, 27 (12) p985-93, ISSN 0385-5600 Journal Code: 7703966
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
A new selective medium, Bacteroides fragilis ammonium-sulfate gentamicin (BFAG) agar, for isolation and presumptive identification of
the Bacteroides fragilis group is presented in this paper. This

semisynthetic medium includes 0.2 g of ammonium sulfate, 0.7 g of lactose,

10 mg of gentamicin, 0.1 mg of aminobenzylpenicillin, 60 units of

bacitracin, 20 mg of sodium cholate and 1 mg of sodium azide per 100
ml of medium. Stock cultures of the B. fragilis group grew well on this

medium. None of the other 126 gram-positive or negative strains belonging

to 40 aerobic or 45 *** anaerobic *** species tested grew on this medium.
Three of the seven specimens in the clinical trials yielded colonies of
only the B. fragilis group on BFAG *** agar *** plates. Also BFAG *** agar ***
plates inoculated with human feces and contents of the alimentary tract (stomach, small intestine, cecum and colon) of mice gave rise to colonies
of only the B. fragilis group. The high selectivity and good plating

efficiency of BFAG *** agar *** enabled us to *** isolate *** the B. fragilis

group rapidly from various clinical specimens.
Tags: Comparative Study
Descriptors: *Bacteroides--isolation and purification--IP; *Bacteroides fragilis--isolation and purification--IP; *Culture Media; Agar; Ammonium Sulfate; Animals; Bacteria--growth and development--GD; Bacteroides--classification--CL; Bacteroides--growth and development--GD; Bacteroides fragilis--classification--CL; Bacteroides fragilis--growth and development--GD; Carbon; Fermentation--drug effects --DE; Gentamicins; Glucuronates--metabolism--ME; Glucuronic Acid; Humans; Lactose--metabolism--ME; Mice; Nitrogen
*** CAS Registry No.: 0 (Culture Media); 0 (Gentamicins); 0*** (Glucuronates); 576-37-4 (Glucuronic Acid); 63-42-3 (Lactose); 7440-44-0 (Carbon); 7727-37-9 (Nitrogen); 7783-20-2 (Ammonium Sulfate) ; 9002-18-0 (Agar)
Record Date Created: 19840627
Record Date Completed: 19840627

19/9/18
DIALOG(R)File 155:MEDLINE(R)

06201935 PMID: 7309757
The isolation of a hexaheme cytochrome from Desulfovibrio
desulfuricans and its identification as a new type of nitrite reductase.
Liu M C; Peck H D
Journal of biological chemistry (UNITED STATES) Dec 25 1981, 256 (24) p13159-64, ISSN 0021-9258 Journal Code: 2985121R
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
Desulfovibrio desulfuricans (ATCC 27774), a strictly anaerobic sulfate-reducing bacteria, is able to perform anaerobic nitrate respiration in which nitrate is first reduced to nitrite by the action of nitrate reductase, and nitrite reductase then catalyzes the six-electron
reduction of nitrite to ammonia. The nitrite reductase was found to be a

membrane-bound enzyme and has been purified to electrophoretic homogeneity.

The purified enzyme has a minimal Mr = 66,000 as judged by sodium dodecyl
sulfate gel electrophoresis and contains 6 c-type heme groups/molecule.

Pure nitrite reductase exhibits a typical c-type cytochrome absorption
spectrum with reduced alpha-band at 552.5 nm. NADH and NADPH do not

function as direct electron donors for the nitrite reductase. Desulfovibrio

vulgaris hydrogenase, however, is able to transfer electrons from H2 to the
nitrite reductase using FAD as the electron transfer *** mediator ***. The
dithionite-reduced nitrite reductase was demonstrated to be auto-oxidizable
even in the presence of potassium *** cyanide ***. On addition of nitrite,
the dithionite-reduced enzyme is re-oxidized immediately. Hydroxylamine,

however, can only partially re-oxidize the reduced enzyme. Ascorbate

reduces the enzyme to a limited extent and the partially reduced enzyme is
neither auto-oxidizable nor re-oxidizable by nitrite or hydroxylamine.

Purified nitrite reductase has a pH optimum in the range of 8.0-9.5 and

optimal activity at 57 degrees C. Purified nitrite reductase also has

hydroxylamine reductase activity, and the Km for nitrite was determined to
be 1.14 mM and that for hydroxylamine is 113.5 mM. The difference in Km

values seems to exclude the possibility of hydroxylamine being a free
intermediate in the reduction of nitrite.
*** Tags: Research Support, U.S. Gov't, Non-P.H.S.***
Descriptors: *Cytochromes--isolation and purification--IP; *Desulfovibrio--metabolism--ME; *NADH, NADPH Oxidoreductases-- isolation **and purification--IP; *Nitrite Reductases--**isolation **and purification--IP; Amino Acids--analysis--AN; Cytochromes--metabolism --ME; Kinetics; Molecular Weight; Nitrite Reductases--metabolism--ME; Spectrophotometry**
*** CAS Registry No.: 0 (Amino Acids); 0 (Cytochromes)***
*** Enzyme No.: EC 1. (Nitrite Reductases); EC 1.6. (NADH, NADPH***

Oxidoreductases)
Record Date Created: 19820222
Record Date Completed: 19820222

19/9/19
DIALOG(R)File 155:MEDLINE(R)
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06130666 PMID: 6268404
Studies on the mechanism of pyrophosphate-mediated **uptake of iron**
from transferrin by *** isolated *** rat-liver mitochondria.
Konopka K; Romslo I
European journal of biochemistry / FEBS (GERMANY, WEST) Jul 1981, 117 (2) p239-44, ISSN 0014-2956 Journal Code: 0107600
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
*** 1. Respiring rat liver mitochondria accumulate iron released from***

transferrin by pyrophosphate. The amount of iron accumulated is 1--1.5 nmol

mg protein-1 h-1, or approximately 60% of the amount of iron mobilized from
transferrin. 2. The uptake declines if respiration is inhibited, substrate

is deleted, or the experiments are run under *** anaerobic *** conditions.
Substrate depletion and respiratory inhibitors are less inhibitory under
****** anaerobic *** conditions. 3. More than 80% of the amount of iron***
accumulated by aerobic, actively respiring mitochondria can be chelated by bathophenanthroline sulphonate, and with deuteroporphyrin included, up to
30% of the amount of iron accumulated is recovered as deuteroheme. Iron

accumulated by respiration-inhibited mitochondria under aerobic conditions
is not available for heme synthesis. 4. With time the uptake of iron

increases eightfold relative to the uptake of pyrophosphate. 5. The results

are compatible with a model in which ferric iron is mobilized from transferrin by pyrophosphate, ferric iron pyrophosphate is bound to the mitochondria, iron is reduced, dissociates from pyrophosphate and is taken

up by the mitochondria. Ferrous iron thus formed is available for heme

synthesis.
*** Tags: In Vitro; Research Support, Non-U.S. Gov't***
Descriptors: *Diphosphates--metabolism--ME; *Iron--metabolism--ME; *Mitochondria, Liver--metabolism--ME; *Transferrin--metabolism--ME; Animals ; Antimycin A--pharmacology--PD; Cyanides--pharmacology--PD; Deuteroporphyrins--biosynthesis--BI; Heme--biosynthesis--BI; Indicators and Reagents; Mitochondria, Liver--drug effects--DE; Phenanthrolines --pharmacology--PD; Rats
*** CAS Registry No.: 0 (Cyanides); 0 (Deuteroporphyrins); 0***

(Diphosphates); 0 (Indicators and Reagents); 0 (Phenanthrolines); 11096-37-0 (Transferrin); 14875-96-8 (Heme); 1662-01-7 (bathophenanthroline); 18922-88-8 (deuteroheme); 28061-20-3 (bathophenanthroline disulfonic acid); 642-15-9 (Antimycin A); 7439-89-6 (Iron)
Record Date Created: 19811118
Record Date Completed: 19811118

19/9/20
DIALOG(R)File 155:MEDLINE(R)
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04750221 PMID: 1228976
Effects of exogenous ATP on short-circuit current and potential
difference of the *** isolated *** frog skin.
Walker L E; Norris W E
Texas reports on biology and medicine (UNITED STATES) 1975, 33 (3) p465-71, ISSN 0040-4675 Journal Code: 2984820R
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Subfile: INDEX MEDICUS
The addition of ATP (10(-3) M = final concentration) to the bathing medium of either side of the isolated frog skin resulted in parallel
increases in potential difference and short-circuit current. Reductions in

these electrical parameters induced by anaerobic conditions and
sodium *** azide *** could be partially reversed by exogenous ATP. The
response is apparently not mediated by cyclic adenylic acid, as it
was not enhanced by theophylline. Ouabain failed to reduce rates of

phosphate liberation induced by ATP, although potential difference and
short-circuit current were reduced.
*** Tags: Research Support, U.S. Gov't, P.H.S.***
Descriptors: *Adenosine Triphosphate--pharmacology--PD; *Skin --drug effects--DE; Adenosine Monophosphate--metabolism--ME; Anaerobiosis; Animals ; Biological Transport; Electricity; Skin--metabolism--ME; Sodium --metabolism--ME; Sodium--pharmacology--PD
*** CAS Registry No.: 56-65-5 (Adenosine Triphosphate); 61-19-8 (Adenosine***

Monophosphate); 7440-23-5 (Sodium)
Record Date Created: 19760901
Record Date Completed: 19760901

19/9/21
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2005 The Dialog Corp. All rts. reserv.

01719060 PMID: 13894062
Sodium azide selective medium for the primary isolation of ****** anaerobic *** bacteria.***
FORGET A; FREDETTE V
Journal of bacteriology (Not Available) Jun 1962, 83 p1217-23, ISSN 0021-9193 Journal Code: 2985120R
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: OLDMEDLINE; Completed
Subfile: OLDMEDLINE
Identifiers: *AZIDES; *BACTERIA/culture; *CULTURE MEDIA
Record Date Created: 19621201
Record Date Completed: 19981101
?

First Hit Fwd Refs Previous Doc Next Doc Go to Doc#

Generate Collection Print

L16: Entry 11 of 21 File: USPT Aug 4, 1998

DOCUMENT-IDENTIFIER: US 5789191 A
TITLE: Method of detecting and counting microorganisms

CLAIMS:

8. The method according to claim 1, wherein the selective medium is for testing anaerobic microorganisms and consists of 35 to 50 parts by weight of a customary base medium and one or more selectors selected from the group consisting of sodium thioglycolate, NaCl, L-cysteine, HCl, resazurin and NaHCO.sub.3.

13. The method according to claim 1, wherein the selective medium is for testing enterococci and consists of 30 to 60 parts by weight of a customary base medium and one or more selectors selected from the group consisting of sodium citrate, sodium azide, thallium acetate and 2,3,5-triphenyltetrazole.

Previous Doc Next Doc Go to Doc#